

What Is Claimed Is:

1. A semiconductor die package comprising:

a housing defining a cavity for holding at least one semiconductor die, said housing including a plurality of insulative side walls, each of said side walls having a bottom surface and an interior wall including a top surface, and an end plate joined to said side walls; and

a plurality of substantially straight conductive leads extending through at least one of said side walls, each of said conductive leads including an internal lead section extending into the cavity from the top surface of the interior wall and a external lead section extending externally from said at least one bottom surface of said side wall.

2. The semiconductor die package according to claim 1, wherein said side walls and end plate are a one-piece unit.

3. The semiconductor die package according to claim 1, wherein said insulative side walls comprise of a liquid crystal polymer.

4. The semiconductor die package according to claim 1, wherein said side walls include a recess for receiving a cover plate.

5. The semiconductor die package according to claim 1, wherein said end plate is adapted to support the at least one semiconductor die.

6. The semiconductor die package according to claim 1, wherein said end plate comprises of a conductive material.

7. The semiconductor die package according to claim 1, further comprising a cover plate that covers at least a portion of the cavity.

8. The semiconductor die package according to claim 7, wherein said side walls include a trench for receiving said cover plate.

9. The semiconductor die package according to claim 8, further comprising an adhesive applied to said trench for securing said cover plate to said housing.

10. The semiconductor die package according to claim 7, further comprising an adhesive applied to said side walls for securing said cover plate to said housing.

11. The semiconductor die package according to claim 1, wherein said external lead sections extend at least two different lengths from said at least one bottom surface of said side wall.

12. A method of manufacturing a semiconductor die package comprising the steps of:
forming a plurality of substantially straight conductive leads; and
forming a package housing defining a cavity for holding at least one semiconductor die,

said housing including a plurality of side walls having an interior wall and an end plate joined to the side walls, wherein each of said plurality of conductive leads extend through at least one of said side walls such that an internal lead section extends into the cavity from a top surface of the interior wall and an external lead section extends externally of said at least one side wall.

13. The method of manufacturing a semiconductor die package according to claim 12, wherein forming a plurality of substantially straight conductive leads includes the step of stamping the substantially straight conductive leads from metal.

14. The method of manufacturing a semiconductor die package according to claim 13, wherein the step of stamping comprises stamping the substantially straight conductive leads from metal so as to form a substantially straight first portion, a thinner second portion, and a substantially straight third portion of a dimension similar to the first portion.

15. The method of manufacturing a semiconductor die package according to claim 12, wherein said step of forming the package assembly further includes:

molding said housing with openings formed in at least one side wall; and
inserting said conductive leads into the openings in the at least one side wall.

16. The method of manufacturing a semiconductor die package according to claim 15, wherein the openings formed in at least one side wall are sized so as to frictionally retain the conductive leads.

17. The method of manufacturing a semiconductor die package according to claim 15, wherein inserting said conductive leads into the openings in the at least one side wall includes individually inserting the leads into the openings in the at least one side wall.

18. The method of manufacturing a semiconductor die package according to claim 15, wherein inserting said conductive leads into the openings in the at least one side wall includes simultaneously inserting the leads into the openings in the at least one side wall.

19. The method of manufacturing a semiconductor die package according to claim 12, wherein said step of forming the package assembly further includes:

molding said housing;

removing material from said side walls to form openings in the at least one side wall;

and

inserting said conductive leads into the openings in the at least one side wall.

20. The method of manufacturing a semiconductor die package according to claim 19, wherein inserting said conductive leads into the openings in the at least one side wall includes individually inserting the leads into the openings in the at least one side wall.

21. The method of manufacturing a semiconductor die package according to claim 19, wherein inserting said conductive leads into the openings in the at least one side wall includes

simultaneously inserting the leads into the openings in the at least one side wall.

22. The method of claim 15, wherein inserting said conductive leads into the openings in the at least one side wall creates friction retention.

23. The method of manufacturing a semiconductor die package according to claim 12, wherein said step of forming the package assembly further includes:

holding the conductive leads in position; and
molding said housing around the conductive leads.

24. The method of manufacturing a semiconductor die package according to claim 12, wherein said step of forming the package assembly includes the step of molding said side walls and said end plate as a one-piece unit.

25. The method of manufacturing a semiconductor die package according to claim 12, further comprising the step of joining a cover plate to said housing.

26. The method of manufacturing a semiconductor die package according to claim 25, wherein said step of forming the package assembly includes forming in said side walls a recess for receiving said cover plate.

27. The method of manufacturing a semiconductor die package according to claim 25,

28. The method of manufacturing a semiconductor die package according to claim 27, further comprising the step of applying an adhesive to said trench for joining said cover plate to said housing.